

Amendment  
USSN 09/605,882

A2  
6. (Amended) A system for fabricating an optical fiber preform, said system including:  
means for holding said preform at both ends,  
a plasma torch as recited in claim 1 for localized heating of said preform, wherein said  
preform is said target,  
means for rotating said preform about its longitudinal axis,  
means for moving said preform relative to said plasma torch in the direction parallel to  
said axis, and  
means for injecting a gas between said preform and the plasma produced by said torch in  
the area of the outside surface of said preform on which said plasma impinges.